

The Most Striking Old Men in the World

Edward Everett Hale, Chaplain of the Senate, Eighty-five, Has Been the Minister of the South Congregational Church in Boston for Fifty Years—Goldwin Smith, "Canada's Grand Old Man," Eighty-four, Still Writing on the Higher Criticism—John Bigelow, Minister to France in Civil War Days, at Ninety, Still Greatly Interested in Affairs.

By DEXTER MARSHALL.

Oldest but one of the world's reigning monarchs, and the only one now living who has had personal experience of real warfare, a man who has suffered nearly every possible disappointment in life, and knows that his death may upset the delicate balance of Europe's peace, Francis Joseph, of the House of Hapsburg, Emperor of Austria-Hungary, surely is entitled to a place among the world's most striking half dozen old men.

He lacks only three years of eighty, and in the nature of things his course is nearly run. Oscar Bernadotte, the gentle King of Sweden, is a year older, but he is in the running with the Hapsburg Kaiser, who has people of more different nationalities for his subjects than any other monarch ruling wholly in Europe. Napoleon had been dead only nine years, and the memory of the Corsican was still vivid, when Francis Joseph came into the world. He was not born to the Austrian throne, but had to take it in 1848 on the abdication of his Uncle Ferdinand, who wasn't man enough to manage his dominions in that revolutionary year.

Warlike work was out and ready to the hand of the imperial boy of 18, since armed insurrection was in progress both in his Hungarian and Italian provinces, this being years before the dream of a United Italy came true. He took part himself in the Hungarian campaign, which was won with the help of the Russians in 1849. He hoped for continued peace after that, although he hardly could have expected it, and certainly was not to enjoy it.

In 1859 he had to fight the combined forces of the Italians, the French and the Hungarians, and was beaten in the great battles of Magenta and Solferino, losing Lombardy, now a part of Italy. Five years later he joined with Prussia, and whipped little Denmark. Then, quarrelling over the territorial spoils, Prussia and Austria got into a war between themselves.

Italy joined with Prussia in this war, and Francis Joseph's forces were thrashed as soundly as the King of Denmark's had been, Sadowa was the decisive battle.

This was only a year after the conclusion of our own civil war, and Austria was thrown out of the German federation. Until then the Austrian Kaiser had been overbearing toward his subjects, especially the Hungarians, but his thrashing taught him moderation, and in the compromise reorganization of his empire, in 1867, Hungary was made a sort of partner, though not an equal one, with Austria.

Francis Joseph has had no wars since 1866 and during much of the forty-one years elapsing has been a strong factor in Europe's peace. Today he is beloved of all his subjects, whether they be Magyars, Czechs, Slavs, Germans, Italians, Greeks, Turks or what not, but they all hate each other, and it will be a marvel if his death is not the signal for a general mix-up of antagonistic races.

Francis Joseph's family troubles have been numerous. His mother was the Princess Sophia (daughter of Maximilian I of Bavaria); nevertheless he married Elizabeth, daughter of a later Bavarian Maximilian. For generations the Hapsburgs have been marrying near relatives, which may account for certain tinges.

At all events, twelve years after he had settled his troubles with his neighbors and his Hungarian subjects, his son Rudolf, the Crown Prince, was found dead in the same room with the corpse of Marie Battazzi, daughter of a Greek banker, with whom he was in love.

Officially it was declared a case of double suicide, but at Meran, in the Tyrolean Alps, they tell another version. According to it the lovers were found together by the man Marie Battazzi was soon to marry. Wild with rage, he grasped a champagne bottle, and with one blow crushed the prince's skull, after which he battered out the girl's brains also. Then he fled to near-by Switzerland, where he is still living, secure as long as he stays there.

The bodies were found by a man in the Imperial service, and he told the truth to Francis Joseph, who sealed the man's lips by presenting him with one of two old castles in the vicinity of Meran. In the tourist season the Emperor's rooms in them to Americans and others who prefer to live in damp old castles rather than in modern hotels. Whether this story is the true one or not no one knows, but no one believes that the facts were as officially reported.

Francis Joseph and his Empress were on bad terms during most of their life together. Like Francis Joseph's mother, she came of the Wittelsbach family, to which Bavaria's notorious "mad king" Otto belonged and her eccentricities were numerous. She was intensely jealous, and possibly with reason, since for many years the Emperor was a great friend of Frau Katherine Schrratt, of the Vienna stage, whom he is said to have married morganically not long after the death of the Empress.

It came suddenly, by the hand of an anarchist, in 1888, while she was making one of her famous trips from palace to palace in search of rest and forgetfulness. A strange story was published in 1886 that the Emperor, wishing to be married again to a woman of his own class, had asked for the hand of another Bavarian princess, Adelgunde Marie Augustine Theres, granddaughter of Prince Louis, then reigning at Munich in the mad Otto's palace. Her parents agreed, but the princess, who was in love with a Bavarian army officer, after burning his letters, attempted suicide, preferring death to the marriage.

It is said that the Emperor then made advances to one or two other princesses, hoping that from the union thus formed a son might be born to take the place of Rudolf, his own prince, but none accepted him. Rudolf's widow, the Princess Stephanie of Belgium, gave her father-in-law a good deal of trouble. She first set her cap for Francis Ferdinand, his nephew—who was slated to take the throne when it became vacant—and after ward married the Count Lonyay of Hungary and terribly scandalized her dissipated old father, Leopold, King of the Belgians, by her union with one below her own rank.

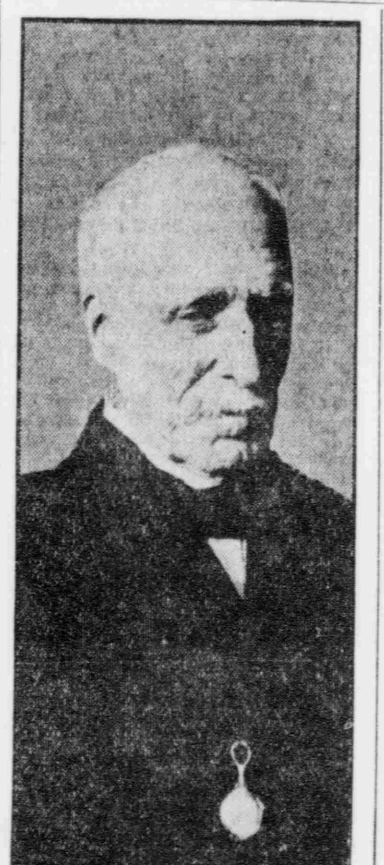
Stephanie and Lonyay separated some years ago. Reasons for the break-up Francis Ferdinand could never reign, and although Francis Joseph's successor has been selected officially, no one outside a small Imperial and official circle knows who he is.

Weird Old Count Tolstoy.
Count Leo Tolstoy, most powerful Russian writer, alive to death, enemy alike of emperors and war, and prophet of protest,

against whatever is, is seventy-nine, two years older than the Hapsburg Kaiser. Tolstoy has had his griefs, also, and, like Francis Joseph, he had a taste of real war in the first half of his life. Tolstoy was educated at the University in Kazan, joined the army soon after getting his degree and did military service in the Caucasus before the Crimean war, but it was in that struggle that he learned to hate war.

The Crimean war began in 1853, when he was twenty-five, and was concluded in 1856, when he was twenty-eight, ten years older than Francis Joseph on ascending the throne. Tolstoy was in several battles and was present during the storming of Sebastopol. He behaved himself so well as a soldier that he was given command of a battery in 1855, and after the close of the war was sent as a special courier to St. Petersburg. Then he got out of the army.

Five years later, in 1861, the serfs were liberated, when Tolstoy retired to his remote estates in the government of Tula, south of Moscow. There, when not



GOLDWIN SMITH,
Canada's Grand Old Man.

traveling up and down studying men and women and conditions, he gradually wrought out the philosophy which he has now been giving to the world for forty years, and on a remnant of that estate he has written most of his powerful novels and essays. His "War and Peace" was not produced until 1869, nearly ten years after his own life as a soldier had closed; "Anna Karenina" not until 1875 and "The Kreutzer Sonata" not until 1889, but he began to write in 1855, composing "Sebastopol" and "The Cossacks" while in the army.

At a year less than eighty Tolstoy is a great and unique figure, and no one denies his supreme genius, yet the world by no means agreed as to whether he is a real prophet or a fantastic old crank. Born into a family of rank and wealth, he showed "temperament" and self-consciousness very early. Before he was ten he threw himself from a second-story window merely to attract attention. He was unconscious for fifteen hours. His next exploit was clipping his own eyebrows, "thus disfiguring his face, which was never strikingly beautiful," according to his sister, "and causing himself a great deal of grief."

He began to have the itch for writing very early. At first he confided his thoughts to his diary, and, judging from an entry given in Paul Brinkoff's book, must have then been almost wildly in love. He was ugly, awkward, uncleanly, and uneducated; I am irritable, a bore to others, rude, intolerant as a child . . . and so lay that for me idleness has become almost a necessary habit.

He formulated his great idea and wrote it down in his diary while camped near Sebastopol. "This idea," he wrote, "is the foundation of a new religion, corresponding to the present state of mankind from dogma and mysticism, a practical religion, not promising future bliss, but giving bliss upon earth."

It was in trying to live the religion he thus laid down that Tolstoy put on any of those peasant and did the work of a peasant, and his sincerity in general accepted, although some of his critics can see nothing in his course more praiseworthy than in his leap from the window and the shaving of his own eyebrows to a celibate's life.

Tolstoy married the handsome young Mile, Sofya Bers at thirty-four. Undoubtedly she saved him from financial ruin, if not from mental wreck. She was a mere girl, a Moscow physician's daughter, when he met her. He was "a jaded man of the world," who thought there were no good women and had decided never to marry. His new religion had begun to work, and he had sold the larger part of his ancestral property preparatory to living a celibate's life.

He fell deeply in love with the young woman, however, although she says that at first all the family thought her elder sister was the attraction. Immediately after the marriage the couple removed to a big standing on what remained of the Tolstoy estate, where they lived for seven years, and where their eleven children were born, and the countless endured many privations and experienced great loneliness.

During all these years the Tolstoy finances were in a bad way, since although his books were selling marvelously well, he would not accept royalties, deploring that he could not do so conscientiously. Finally the couple rebelled, insisted on collecting the royalties, gradually paid off the debts on the estate and bought a house in Moscow. There the family now lives a part of each year and there in the latter part of her life the Countess Tolstoy is able to enjoy in some measure the society from which she was shut out so long.

Whether in the country or in Moscow, Tolstoy is overrun with visitors. Many of them are in sympathy with his ideas and his work, but others are celebrities, hangers-on, and some call upon him simply to scoff. Often he refuses to see them, yet he receives a surprisingly large number, for some reason never telling.

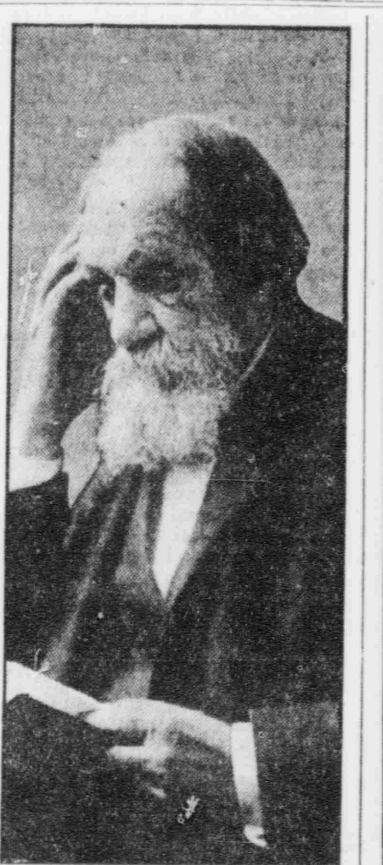
away Americans if he can help it, although he sometimes abuses this country.

It is because of the conflicting tales of his visitors, perhaps, that some one has said "the stories told about his life have almost assumed the proportions of a myth." Willingness to be photographed in his favorite peasant's dress and in all sorts of theatrical attitudes, with or without his guests, is one of his weaknesses. Despite the great fame brought to him by his novels, he is now said to look with extreme disfavor upon all works of fiction.

Minister, Novelist, Historian.
At eighty-five, six years older than Tolstoy, and of an entirely different sort, Edward Everett Hale, chaplain of the United States Senate, writer, editor, and Unitarian minister, is as striking a figure in his way as Tolstoy is or Francis Joseph in his.

Unlike most of this country's brightest literary lights, he was not a country boy, his birthplace being Boston, which, in 1822, was perhaps the most civilized city in the United States, although nothing of its type can now be found.

Hale's boyhood differed from the boyhood of the average well-born youngster about as the Boston of that day differed from the Boston of 1907. He prepared for Harvard at the Boston Latin School, learned to set type, how to "make up" a "form," and how to run a hand press in his father's printing office at twelve, entered college at fourteen, and was graduated at seventeen. He was a regularly ordained minister at twenty-two, which is about the average age of the college



EDWARD EVERETT HALE,
Factor in Affairs for Years.

graduate of to-day, and his active career has now extended over sixty-five years, as he was an usher in the Latin School for two years before he began to preach. To say of this fine old man that he comes of good stock would be to kill fine gold. His father was Nathan Hale, of the same family as his namesake who was hanged as a spy. His mother was Sarah Preston Everett, sister of Edward Everett and Alexander Hill Everett, both statesmen and diplomats of almost the first rank in the first half of the last century. The boy knew the entire New England coteries of nineteenth century literary and philosophic lights, including Longfellow, Emerson, Alcott, and all the rest, and he also knew nearly all the public men of two or three generations ago, including Webster, and has told good stories about some of them in his remarkable book entitled "Memoirs of a Hundred Years." Besides, he has known nearly everybody worth knowing since that time.

He is extremely proud of the fact that his father, in addition to being the publisher of the Boston Daily Advertiser for nearly half a century, was the promoter of one of New England's first railroads and bought its first locomotive.

Dr. Hale's most famous book is "The Man Without a Country." His "Lead a Hand" clubs have done as much real good, perhaps, as all of Tolstoy's lurid writings. He has been the minister of the South Congregational (Unitarian) Church in Boston, fifty-one years. He learned to write shorthand when a boy, and still writes it. He believes he could do a fair day's work as a journeyman printer in the same shop that not up-to-date. He has two children who have made marks for themselves—Edward Everett Hale, Jr., a college professor, and Ellen Day Hale, a successful artist.

Salvation Army's Founder.
Two years under eighty, which means that he is a year younger than Tolstoy, William Booth, "general" of the Salvation Army, is quite as striking a man as any of those mentioned and as well known to the world in spite of their respective literary and imperial pretensions. He surely has as much initiative as any of them, and is second to no man living in originality of method.

Gen. Booth is a Nottingham man. At twenty-one he became a minister of the Methodist New Connection, an offshoot of the regular Methodists in Great Britain, as they were an offshoot from the Church of England. He decided that the densely peopled slums of London, where religion of any sort was almost unknown in 1839, needed him most, and there he began his work.

His wife helped him, with all possible enthusiasm. Both saw, however, that the right tack had not yet been taken. The Methodist New Connection methods were hardly more potent in reaching the people of the slums than those of the older church organizations.

It was Mrs. Booth who got the first inkling of the right course. She saw that it was no more use to ask the people to go into her husband's chapel than into a splendid church of the established faith, with its magnificent music and its showy ceremonial. She saw that the only way to get the people at all was to go to them. So she proposed to make a noise on the street; this would draw a crowd about the noisemaker, who would then preach the Gospel to the crowd.

Booth saw the point, though not as yet completely, and the first meeting after the new plan was held on an old tent. It was not strictly an open-air meeting, however, being sheltered by an old tent pitched in a Whitechapel burying ground, but the actual open-air meetings came later.

The idea of organization along military lines, of uniforms and drums, and the name, Salvation Army, came still later, the name not being adopted till 1878, when the first annual conference was held.

baker's dozen of years after the first tent meeting under the name of the Christian Mission was held.

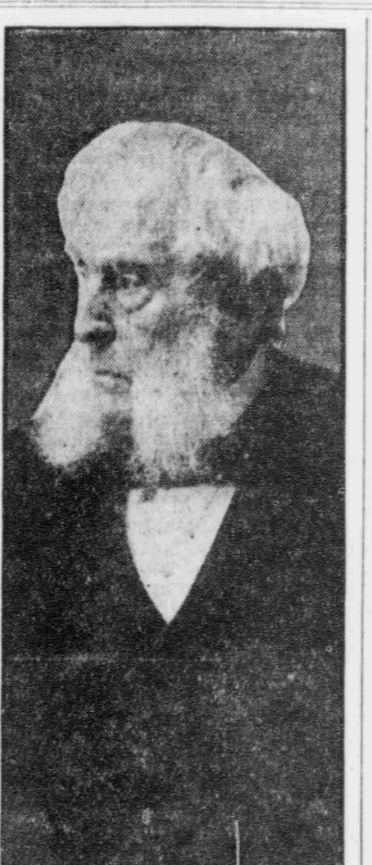
Commander Booth has traveled many thousands of miles since then, visiting the uttermost parts of the earth, in extending the scope of his remarkable religious organization. All his children have been practical aids of their father in his work. In the twenty-nine years of the army's life he has had to develop organization, perseverance, indifference to criticism, and no little despotism. Of this last he showed so much a few years ago that Bullingdon, then head of the army in the United States, succeeded when ordered elsewhere by his father, and formed a new gospel army of his own, the Volunteers of America. Yet under the general's command, the Salvation Army is supreme in its field in this country to-day, and the opposition which it met here, as in England, in its youth, has practically all been overcome.

The latest recent of Gen. Booth's half dozen visits to the United States took place early in this year. He is now on a trip around the world, the last, he says, that he shall ever make. Nobody save himself knows who will succeed him when death shall call him away.

Canada's "Grand Old Man."

At eighty-four, Goldwin Smith, now and for thirty-six years a Canadian citizen with residence at Toronto, but before that a professor in an American university, and until he was forty-five, a figure and a power in English public and literary life, is fully entitled to be listed among the world's most striking old men.

He has been remarkable for the force which he has exerted throughout a career extending over two full generations



JOHN BIGELOW,
Lawyer, Journalist, and Diplomat.

—he was graduated from Oxford University sixty-five years ago—and his championship of New World ideas and ideals, although surrounded by the most conservative influence in his youth. He was very progressive, however, before he left England, being termed a radical in Palmerston's days.

He was nearly forty when the American civil war broke out, and throughout that struggle was a strong champion of the Union cause. He came to this country in 1864, and was so impressed with its future and its possibilities that, four years later, he left England permanently to accept a professor's chair at the then newly founded Cornell University. To do this he sacrificed a most promising career in letters, politics, and social life in Great Britain, where he had reached a high place as an author, a university lecturer, and a government official.

When he left Cornell he presented that institution with his own private library, a most valuable collection of books. He believes that Canada is destined to merge her political life with that of the United States eventually, and has written much in support of that notion. His published books, all on the most important questions, number about two scores; and he has been a voluminous magazine writer.

He is an ardent champion of the higher criticism of the Scriptures, and his letters on the subject are an important attraction to many readers of a certain New York newspaper. He did not marry till past fifty. His home, the Grange, a picturesque vine-clad old house on the outskirts of the city, is one of Toronto's best-known show places.

John Bigelow at Ninety.
Oldest man of the list, being ninety, John Bigelow, who in his official biography is modestly described as an author, is now almost forgotten, although he was one of the world's most striking men for half a century, and is still more active than some men of sixty.

He was almost as precocious in his youth as Dr. Hale, but was not graduated from his alma mater, Union College, until eighteen. The law was his chosen profession, and that led him into politics, through which he became minister of Sing Sing State Prison in 1835, so long ago that the septuagenarian of to-day was not yet born. Then, when he was thirty-two, he slid over into newspaper writing, becoming one of the New York Evening Post's editors under Bryant, when its staff was made up of genuine intellectual giants. Bigelow remained on the paper until 1851, and during his stay

Walt Whitman was one of its correspondents; Artemus Ward contributed; Bret Harte was a regular attaché, and the Sainte Beuve letters were published. In 1851, when the consul generalship at Paris was considered of prime importance because of the civil war, Bryant was suggested for the place. He couldn't go, and Bigelow was appointed instead.

He did great work in Paris, making himself a favorite at the court of Napoleon III, in spite of its sympathy with the South, and he discovered and stopped the sale by the French government of four ironclads to the Confederates. It was Bigelow who, while assisting in the search for information about Benjamin Franklin's life in Paris, found and rescued the manuscript of the sage's autobiography, which gives such a faithful picture of that philosopher and statesman as never could have been written by any hands but his own.

On the death of the Minister to France, President Lincoln placed Bigelow at the head of the United States Legation in Paris, and he served from 1864 to 1867. After his return to the United States he became a favorite at the court of Napoleon III, in spite of its sympathy with the South, and he discovered and stopped the sale by the French government of four ironclads to the Confederates. It was Bigelow who, while assisting in the search for information about Benjamin Franklin's life in Paris, found and rescued the manuscript of the sage's autobiography, which gives such a faithful picture of that philosopher and statesman as never could have been written by any hands but his own.

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He is still actively interested in affairs

though retired from business, and often appears in public. He is a tall, rather gaunt man, talks pleasantly and wears white ducks in the warm weather when at his country place up the Hudson.

Poulitney Bigelow, who used to be Emperor William's friend, and who wrote up the Panama Canal after a visit of thirty-eight hours, is John Bigelow's son. Another son, John Bigelow, Jr., is a West Point man, and served in the Spanish war, but retired from active military service in 1904, owing to a wound. He is now professor of French at the Massachusetts Institute of Technology.

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JEFFERSON ON THIRD TERM.

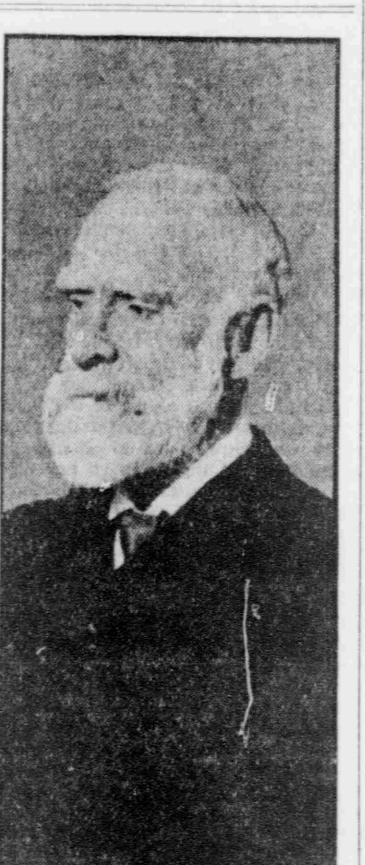
His Argument Helped Materially to Build Up Opposition.

From the Louisville Courier-Journal.
As the third-term boomers continue their pernicious activity in trying to get Mr. Roosevelt to reconsider his expressed determination not to again be a candidate, it is of interest to notice how Thomas Jefferson treated the same subject. When requested by the legislature of Maryland to become a candidate for a third term, he wrote:

If some termination to the services of the Chief Magistrate be fixed by the Constitution, or supplied by practice, his office, normally four years, will in fact become for life, and history shows how easily that degenerates into an inheritance.

I feel it a duty to do so and I should unwillingly feel the person who, disregarding the sound precedent set by an illustrious predecessor, should furnish the first attempt of preemption beyond the second term of office.

This states the argument very conclusively in a few words, and no doubt had much to do with building up that strong opposition to a third term, which did not yield even to the great popularity of Gen. Grant.



JAMES BRYCE,
British Ambassador to United States.

JUDGE JONES' RULING.

How a Leading and Influential Southern Journal Looks Upon It.

From the Atlanta Constitution.
If a decision rendered by Judge Thomas G. Jones, of the Federal court of Alabama, is sustained by the Supreme Court of the United States, it will mean that those guilty of the indefensible practice of lynching will, in future, almost inevitably meet punishment.

The constitutional right granted every citizen of the United States of a free and fair trial, and the protection of the law, is the basis of the opinion in the case of Powell, rendered by Jones.

The forcible wresting of a prisoner from the protection of any State or county officer, and the putting to death of such person—in other words, the failure of the State to insure to every prisoner all the rights to which he is entitled under the constitution—is held by Judge Jones to be sufficient for the United States authorities to take a hand and the Federal courts to assume jurisdiction.

There is probably nothing that would so surely inspire heedless rioters and thoughtless henchmen of Judge Lynch with a salutary and profound regard for the law and induce a sober second thought before committing acts of violence, as the belief that such participation in lawlessness was almost sure to merit and insure punishment.

Under the impelling influence of horror and vengeance, stirred up and lashed into a fury by the commission of frightful crimes, men are too apt to lose control of their reason, forget their duty to the state, their moral obligation and their personal accountability. They forget that the law which they have violated is their own safest protection, and that the power which they have derided is the one they must turn to for the preservation of conditions that will permit themselves and their families to live in the state of greatest peace and security.

We have long pointed out the practical certainty of Federal interference in one shape or another, if lawlessness and mob rule is not checked and resolutely put down by the force of local public sentiment. Judge Jones has attempted to point a way by which the Federal courts can assume jurisdiction, and sustains his position with citations of the rights granted under the thirteenth and fourteenth amendments to the Constitution.

If this decision is affirmed by the Supreme Court, and Federal courts are given jurisdiction in cases of lynching, where prisoners are taken in defiance of the authority of the local officers, convictions and punishments will result which are utterly impossible under the present state of affairs. The Federal government could change the place of holding the trial of accused lynchers from the county in which the act is committed to one in a distant part of the State, where the pressure of local acquaintance and influence would be removed.

Tricks of the Tariff.

From the New York World.
Ex-Secretary Shaw tells the Canadians that it would be improper for the United States to make a special tariff treaty with Germany, giving her better terms than Great Britain. But of course it is perfectly proper in a standpatter's eyes to make such a deal for a single year, so long as you call it an "agreement" and not a treaty.

His Performance Eclipsed.

From the Louisville Courier-Journal.
A tramp who has traveled 42,000 miles without paying his fare describes himself as "A No. 1." He is evidently ignorant of the fact that prior to the enactment of the Hepburn bill many an American statesman had made his record like a little journey over to the drug store.

Science of Dry Farming

BY FREDERIC J. HASKIN.

From the Canadian border on the north to the Rio Grande on the south, and from the Rocky Mountains westward almost to the sea, lies that great strip of land known to geographers as arid America. Twelve hundred miles long, and 1,200 miles wide, it comprises an area equal to about one-third that of continental United States, exclusive of Alaska. Here lie vast domains of public lands, 900,000 acres in all, besides railroad grants and school lands, and 70,000,000 of these acres are known as desert land. Stretches of dazzling white sand, and broken here and there by purple mountains, bare and windswept, this so-called desert land has been condemned for a century by settlers because of its inhospitable aspect and its unresponsiveness to the ordinary methods of farming. Hopeful men have come in croaking praise of the fertility of the East, have built little homes on the desert rim, have tried the old methods of tilling this dry soil, have seen their wives and children go sad-eyed and hungry when the crops failed, and have gone croaking back into the East again, discouraged and disheartened, cursing the desert that lured them on with its mirage of harvest seasons, only to disappoint them.

Yet in this desert country there lies, so scientists and practical farmers tell us, the possibilities for fulfilling the old Biblical prophecy that the waste places may be made glad and that the desert will blossom as a rose. It will need no miracle to prove this, and little outside influence to bring it about. It will mean only a scientific use of the materials nature already has at hand. In ordinary agricultural methods, such as were practiced by our fathers, and their fathers before them, it was demanded that nature be producing in her soil moisture, moisture, and when nature was kind, personal effort decreased, and the crops were satisfactory. Because of this old dependence on rain those who went to the West and tried farming in the land of little rain soon grew discouraged, and the average annual precipitation in the foothills of the Rockies is only 14.93 inches. Yet, in the light of newer experiments, it has been found that crops can be raised on an average rainfall of ten inches, making this precipitation really nearly three inches over what is needed.

This new method by which the desert land is to be redeemed is known as dry farming, and its principle is the very simple one of conserving every particle of moisture that falls during the year, not in large reservoirs or behind expensive concrete dams, but in the soil itself. A year before a crop is to be planted the farm land is plowed deeply with special machinery. Strong disk plows not only pulverize the subsoil, but pack it into a firm bed through which the conserved water may not sink, and through which the excessive salts that usually lie four or five feet below the surface may not rise by evaporation to burn and blight vegetation.

On this subsoil the surface soil is pulverized to a fine dust by special machinery that it seems it must have been done by the fingers. This makes a mulch through which rain and melted snow may percolate to rest on the packed subsoil beneath, but through which no moisture can rise. It demonstrates the physical law of capillary attraction, for moisture most easily rises through moist channels, just as oil rises more quickly in a lamp wick than has been saturated in oil than it does in a dry wick. Lecturers in demonstrating their theory have represented the damp subsoil with a lump of loaf sugar sprinkled over with powdered sugar. When the lump is wet the powder remains dry.

The pioneer dry farmer of America, and of the world, for that matter, was H. W. Campbell, of Lincoln, Neb. Over twenty years ago he evolved this theory, and, having the courage of his convictions, put it into practice. From the James to the Arkansas River he has tried it on all the former waste places, and has made good. Other places have followed. In the wake of his disciples the Spanish bayonet, the yucca, greasewood, and sage brush are disappearing, and wheat, corn, alfalfa, barley, grasses, fruits, and vegetables are springing up in a most satisfactory and lavish fashion. The secret of the success lies in the dry farmer never stopping work. In the older fields of the East and the South there are periods of inactivity that follow the "laying-by-time" or harvest, and the farmer may turn his thoughts to barbecues, fishing excursions, or simply go lie out under the trees and follow Riley's plan of seeing "jes' how lazy he kin be."

Not so with that sturdy man who goes to conquer the lands of the West. Even as eternal vigilance is the acknowledged price of peace, so is tireless industry the price of his prosperity. The minute a few drops of rain fall, he is out in his plow field with disk harrow to stir the soil and powder it so that the seed may not rise again. He stirs it this way for a year before he plants his seeds. He stirs it while the seeds are sprouting until he is in danger of injuring the germinating plant, and ceases only when the plants are large enough to make a protecting shade for the soil. The minute the crop is harvested he does not sit idle and think of his profits on that crop. Instead, he follows the harvester that same day with his subsoil plow, and has his land all ready for the next planting, letting it lie fallow until then.

Modern invention has come to the aid of the dry farmer. Giant machines minimize time and labor for him. Across the unbroken, virgin soil of the prairie passes a thirty-two horsepower engine, drawing in its wake an aggregation of agricultural machinery that includes twelve 14-inch plows, two row rollers, two clod crushers, two seed drills, and other necessary things. It leaves behind it a great stretch of brown, pulverized soil, in which the seeds lie hidden for the coming crop. This giant prepares and seeds thirty-five acres of land in a working day of ten hours, at a cost of about 90 cents an acre. By the old method the time would have been many days, and with horses as motive power would have cost \$5 an acre.

The ordinary farmer on the plains plants forty quarts of wheat to the acre, and has a return of anywhere from nothing to twenty bushels. The dry farmer plants twelve quarts of wheat, practices care, intelligence, and endless cultivation, and has a return of from thirty-five to fifty-six bushels an acre. It is claimed by advocates of dry farming that their methods in Kansas would have raised the 1905 yield of twelve and three-quarters bushels an acre to thirty-seven. They also claim that if 1 per cent of the money spent on irrigation were expended in the teaching of dry farming, 300,000,000 acres of desert land could be scientifically reclaimed.

The dry farmers do not disapprove of irrigation. They find in all the big West plenty of room and need for both. They have been spent in dams and ditches for diverting the rivers that there will still remain many millions of acres untouched by the irrigation plan, inaccessible for this work, far out of the range of rivers

or mountain reservoirs. They look to that day when the young men of the nation will have earned and adopted their new plan, and see in the days of a golden future 35,000,000 people comfortably housed on the now vacant lands of the far West. It has been proved that forty acres of this land will support in modern comfort a family of from three to five.

It has been only a few years that the Department of Agriculture has made practical experiments in dry farming, following on the heels of private enterprise and setting the seal of public approval on a plan for great internal development. Men were sent to Russia to study the wheat fields near the sea of Azov, where rain is scarce and where the general conditions are not unlike those of the arid West. It was decided to experiment with durum, the wheat from which macaroni flour is made. The United States imports each year 2,500,000 pounds of the manufactured product and many pounds of the durum wheat flour, so the plan had a commercial significance. In 1901 the first crop of durum was harvested on the dry lands, 10,000 bushels in all. Last year the harvest was well up toward the 30,000 mark. El Paso County, Colo., on its dry lands, grew forty-seven bushels to the acre. It is claimed that manufacturers have opposed the raising of durum wheat, as it is a harder grain and requires stronger machinery than other grains.

It is difficult to interest the older farmers of the West in the newer processes of agriculture, and the ones who come fresh from the East are also hard to convince. It is on the young men of the West that the hopes of the scientists rest for the development of their new idea. The members of the Young Men's Club, of Cheyenne, opened an experiment farm near that city, and proved the theory to their own satisfaction. The Pomeroy Model Farm, at Hill City, in Western Kansas, got glorious returns from its persistent and careful work. The Eastern Colorado Fair Association of 1905 had one of the most interesting State agricultural exhibits that this country has known, and the giants of the vegetable kingdom that appeared there in all their fullness and pride were grown without irrigation.

The Fort Hays agricultural station, a substation of the Kansas State Agricultural College, has proved that four cuts of alfalfa per year are possible on dry-farm lands, while the experiment stations in Sedgewick County, Colo., have proved it possible to get a yield of thirty-five bushels of wheat to the acre, fifty-five of oats, two tons of millet, and five tons of cane for forage. The Campbell Dry Farming Association, of Denver, the Scientific Farming Association, of Bennett, Colo., the Business Men's Association, of Lincoln, and Julesburg, are allied with the State agricultural colleges and the United States Department of Agriculture in perfecting schemes for the further spread of dry-farming interests. This would mean the redemption of a section of country equal in extent to